

Application for Certification

2005 Model Year

Common section

Honda Motor Co., Ltd.

01.00.00.00 COMMUNICATIONS

.01.00.00 Mailing Information

Please mail one copy of the Federal Register, Advisory Circulars, and other technical information to the following individual.

Darin Johnson
Assistant Manager
Certification Department
American Honda Motor Co., Inc.
1919 Torrance Blvd., Torrance, CA 90501-2746

.01.00 EPA/ARB Liaison Representatives in the U.S.

Darin Johnson
Assistant Manager
Certification Department
American Honda Motor Co., Inc.
1919 Torrance Blvd., Torrance, CA 90501-2746
Telephone Number: (310) 783-3421
Fax Number: (310) 783-3510
E-Mail: Darin_Johnson@ahm.honda.com ¹

Michael Tyrrell
Administrator - Certification
Certification Department
American Honda Motor Co., Inc.
1919 Torrance Blvd., Torrance, CA 90501-2746
Telephone Number: (310) 783-3419
Fax Number: (310) 783-3510
E-Mail: Michel_Tyrrell@ahm.honda.com ¹

Julie Barkow-Peck
Certification Assistant
Certification Department
American Honda Motor Co., Inc.
1919 Torrance Blvd., Torrance, CA 90501-2746
Telephone Number: (310) 783-3417
Fax Number: (310) 783-3510
E-Mail: Julie_Peck@ahm.honda.com ¹

¹ E-Mail addresses are provided for the convenience of Agency staff.
E-mail communications should not be used as and will not be recognized as official communications between Honda and government agencies.

01.01.01.00 EPA/ARB Liaison Representatives in the U.S. (Continued)

Yasuto Nakata
Coordinator
Certification Department
American Honda Motor Co., Inc.
1919 Torrance Blvd., Torrance, CA 90501-2746
Telephone Number : (310) 783-3415
Fax Number: (310) 783-3510
E-Mail: Yasuto_Nakata@ahm.honda.com

.01.02.00 Representative in a Foreign country

Kunio Ito
General Manager
Certification and Regulation Compliance Division
8-1 Honmachi, Wako City, Saitama Prefecture, Japan 351-0114
Telephone Number: (048) 465-3321

Eiichi Masuko
Deputy General Manager
Motorcycle & PowerEquipment Certification office
Certification and Regulation Compliance Division
15-1 Senzui, 3-chome, Asaka City, Saitama Prefecture, Japan 351-8555
Telephone Number: (048) 462-3338

.03.00 Certificate Information

The corporation name and address which should appear on the certificate of conformity.

Honda Motor Co., Ltd.
1-1, Minami-Aoyama, 2-chome, Minato-ku,
Tokyo, Japan 107-8556

The name and address of the person to whom the certificate of conformity should be mailed.

Darin Johnson
Assistant Manager
Certification Department
American Honda Motor Co., Inc.
1919 Torrance Blvd., Torrance, CA 90501-2746

¹ E-Mail addresses are provided for the convenience of Agency staff.
E-mail communications should not be used as and will not be recognized as official communications between Honda and government agencies.

CONFIDENTIAL

02.00.00.00 STATEMENT OF CONFIDENTIALITY

1. Which information in the application for certification is considered to be entitled to confidential treatment until model introduction?

Section No.: 02 Statement of Confidentiality*
04 New Technology *
06 California Corporate Plan*
07 Individual Engine Families*

* see #2 below.

2. Which information in the application for certification is considered to be entitled to continuing confidential treatment after model introduction?

Section No.: 02 Statement of confidentiality
04 New Technology
06 California Corporate Plan
07 Individual Engine Families
Item 8 Projected Annual Sales
Item 25 Catalytic Converter
Active material
composition
ratio
loading
Item 56 Evap. Family Sales

3. To what extent has the information been disclosed to others, and what precautions were taken with respect to these disclosures?

Within Honda Motor Co., Ltd. the confidentiality of this information has been protected by treating it as top secret classification and access to this information has been prohibited except for employees who actually work with the information and are familiar with the classified nature of their work.

4. Is the information available to the public through legitimate means?

No

5. Can the information be derived from a detailed engineering inspection of the motor vehicle model in question or from information already public once the model is offered for public sale?

No

CONFIDENTIAL

6. Would disclosure of the information be likely to result in substantial harm to the applicant's competitive position? If so, a detailed discussion regarding what the harmful effects would be, why the effects would be substantial, and the nature of the causal relationship between disclosure and the harmful effects must be presented.

Yes.

The documents listed in Section 2 above, consist of sales information, production tolerances and quality control procedures, not customarily made public by Honda and they contain trade secrets and commercial information which is privileged or confidential under 5 USC*552(b)(4), 49 CFR Part 7.

These procedures and data have value to Honda and could have competitive value to foreign and domestic motor vehicle manufacturers. Throughout the years, Honda has incurred substantial expenditures of manpower, capital, facilities and equipment in developing these procedures and specifications.

They are used for a variety of purposes as stated or indicated herein, all of which relate to the more effective operation of our business. Honda, therefore, treats them as confidential, proprietary information available only to authorized Honda personnel and not otherwise available to the public.

By knowing the details of these sales figures, production tolerances and quality control procedures employed by Honda in operating its business in the areas covered by this material, another motor vehicle manufacturer can gain a significant competitive advantage over Honda. For example: Disclosure of sales projections may allow our competitors to make timely adjustments to their production and sales plans which would have a severe effect on our sales and production.

Disclosure of production cost reduction techniques such as production tolerances and quality control information without benefit of remuneration for their development could lead to unfair competitive advantage in per unit cost on the production line and market place. This and other information can be used by a competitor to adopt the Honda technology or redesign its current development programs. This dual threat of the competitors' unearned savings and Honda's uncompensated expense could result in a competitive disadvantage to Honda.

If you do not agree with our characterization of this material as confidential information, or if a request for disclosure of any or all of this material is received under the Freedom of Information Act or any other statute or regulation, we request that we be given notice and, if necessary, an opportunity to further explain its confidential nature and the reasons for not disclosing it to the public.

03.00.00.00 MAINTENANCE AND WARRANTY

.01.00.00 Owner's Manuals

Owner's Manuals will be submitted at least 30 days before being supplied to the ultimate purchaser, in accordance with 40 CFR 86 412-78(a).

Note: Submission of shop manual and technical service bulletins is no longer required per EPA letter CD-86-04 (MC) dated March 12, 1986.

03.02.00.00 Emission System Warranty Statement

DISTRIBUTOR'S LIMITED WARRANTIES EMISSION CONTROL SYSTEMS

Your Honda TRX complies with either U.S. EPA or State of California emissions regulations. American Honda provides the same warranty coverage to all TRX owners regardless of where the TRX is registered.

Your Warranty Rights and Obligations

American Honda is pleased to explain the emission control systems warranty on your vehicle.

American Honda must warrant the emissions control system on your vehicle for the periods of time listed below, provided there has been no abuse, neglect or improper maintenance of your vehicle.

Your emissions control system may include parts such as the carburetor, the ignition system, catalytic converter and engine computer. Also included may be hoses, connectors and other emission-related assemblies.

Where a warrantable condition exists, American Honda will repair your vehicle at no cost to you, including diagnosis, parts and labor.

Manufacturer's Warranty Coverage

If any emission-related part on your vehicle is defective, the part will be repaired or replaced by American Honda. This is your emissions control system DEFECTS WARRANTY.

Owner's Warranty Responsibilities

As the vehicle owner, you are responsible for the performance of the required maintenance listed in your owner's manual. American Honda recommends that you retain all receipts covering maintenance on your TRX, but American Honda cannot deny warranty coverage solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

You are responsible for presenting your vehicle to a Honda TRX dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

As the vehicle owner, you should also be aware that American Honda may deny you warranty coverage if your vehicle or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

If you have any questions regarding your warranty rights and responsibilities or if an authorized Honda dealer cannot repair your TRX or honor your claim within a reasonable period of time, contact the American Honda Motorcycle Customer Relations Office for assistance (see page 16).

Emission Control Systems (continued)

If you are not satisfied with the way in which a warranty claim is resolved by American Honda, you may write directly to:

Director of Field Operations
Support Division (EN-397F)
Environmental Protection Agency
401 M Street, S.W.
Washington D.C. 20460

Emissions Warranty Coverage

American Honda warrants to the owner that the ATV:

- is designed, built and equipped to conform at the time of sale with all applicable emissions standards, and
- is free from defects in materials and workmanship which would cause it to fail to conform with applicable requirements during the specified time limit.

This warranty begins on the date the ATV is delivered to the first purchaser other than an authorized Honda motorcycle dealer, or the date it is first used as a demonstrator, lease, or company vehicle, whichever comes first and continues for the time listed below:

Time: 2.5 years (30 months)

The Emissions Control System Defects Warranty is in addition to the American Honda TRX Limited Warranty. These warranties are given only to the owner of a TRX distributed by American Honda through the Motorcycle Division.

To qualify for coverage under the defects warranty, you should operate and maintain your TRX according to the requirements on page 3 of this Warranty booklet, and the Maintenance Schedule in the Owner's Manual. This schedule is designed to keep your TRX emission control systems functioning properly by maintaining your TRX in peak operating condition. American Honda will not deny a warranty claim solely because of lack of maintenance or maintenance records. However, failures caused by abuse or lack of required maintenance will not be covered by this warranty.

American Honda recommends that only parts supplied by American Honda or equivalent parts be used to repair your TRX. Maintenance, replacement, or repair of emission control devices and systems may be done by any TRX repair establishment or individual. American Honda will only pay for warranty repairs performed at an authorized Honda TRX repair facility (except in an emergency situation). An emergency situation exists when a Honda dealership is not reasonably available, a warranted part is not available within 30 days, or when an authorized Honda facility is unable to complete a repair within 30 days. In an emergency situation,

the repair of emission control devices or systems may be done by any TRX repair establishment or individual, or by the owner, using any replacement part. American Honda will reimburse you for those emergency repairs, including diagnosis, covered by the Emissions Warranties. Parts reimbursement is at the manufacturer's suggested retail price, and labor reimbursement is at a geographically-appropriate hourly labor rate for Honda's recommended time allowance. For reimbursement, present the replaced parts and a copy of the paid receipt to any authorized Honda TRX dealer. A list of parts covered by this warranty appears on page 11.

The use of replacement parts not equivalent to the original parts may impair the effectiveness of your TRX's emissions control systems. If such a replacement part is used in the maintenance or repair of your TRX, and an authorized Honda dealer determines it is defective or causes a failure of a warranted part, your claim for repair to bring your TRX into compliance with applicable standards may be denied. If the part in question is not related to the reason your TRX fails to meet the standards, the claim will not be denied.

This Emissions Warranty Does Not Cover:

- Failures or malfunctions of the emission control systems caused by abuse, alteration, accident, misuse, or the use of leaded gasoline.
- Replacement of expendable maintenance items unless they are original equipment defective in material or workmanship under normal use, and the first required replacement interval for the item has not been reached. Expendable maintenance items include but are not limited to:
 - spark plugs
 - filters
 - coolant
 - lubricants
 - gaskets
 - hoses
 - belts
- Consequential damages such as loss of time or use of the vehicle.
- Prohibited actions related to 40 CFR, part 1068, Subpart B, Section 1068.101 (b) and competition use.

Emission Control Systems (continued)

To Get Emissions Warranty Service

Repairs covered by this warranty will be performed at no charge for parts, labor, and diagnosis. Any authorized Honda TRX dealer will perform the adjustment, repair, or replacement within 30 days from the time you take your TRX to the dealer.

If an authorized Honda dealer is unable to repair your TRX within 30 days from the time you take your TRX to the dealer, then this situation will be treated as an emergency and you may have your TRX repaired at any repair facility you choose. If you choose a repair facility which is not an authorized Honda dealer, Honda will reimburse you for the repair, including diagnosis. Parts reimbursement is at the manufacturer's suggested retail price, and labor reimbursement is at a geographically appropriate hourly labor rate for Honda's recommended time allowance. For reimbursement, present the replaced parts and a copy of the paid receipt to any authorized Honda TRX dealer.

Emissions Warranty Parts List

Fuel Metering System:

- Carburetor
- Carburetor Air Jet Solenoid Valve
- Carburetor Coolant Thermal Valve
- Starting Enrichment Thermal Valve
- Starting Enrichment Valve
- Idle Air Control Valve
- Intake Manifold
- Fuel Filter

Ignition System:

- Engine Coolant Temperature Sensor
- Gear Position Switch
- Ignition Coils
- Ignition Control Module
- Ignition Pulse Generator
- Distributor Ignition Capacitor
- Spark Plug (covered up to the first replacement only)
- Spark Plug Cap
- Spark Plug Wires
- Cam Position Sensor
- Vehicle Speed Sensor

Air Injection System:

- Pulse Secondary Air Injection Check Valve
- Pulse Secondary Air Injection Control Valve
- Pulse Secondary Air Injection Solenoid Valve

Shot Air System:

- Intake Air Shot Air Check Valve
- Intake Air Shot Air Valve

Emissions Warranty Parts List (continued)

Exhaust System:

- Catalytic Converter
- Oxygen Sensor
- Heated Oxygen Sensor
- Exhaust Gas Control Valve
- Exhaust Manifold
- Exhaust Pipes (to the catalyst and between catalysts)

Intake Air Temperature System:

- Intake Air Temperature Check Valve
- Intake Air Temperature Sensor
- Intake Air Temperature Thermal Vacuum Valve
- Intake Air Temperature Valve

Crankcase Emission Control System:

- Air Cleaner (covered up to the first replacement only)
- Air Cleaner Housing
- Air Cleaner Housing Cover
- Crankcase Breather Separator
- Crankcase Breather Storage Tank
- Crankcase Breather Tube Plug
- Reed Valve
- Oil Filler Cap

Parts Associated with the Systems Above:

- Malfunction Indicator Light Bulb
- Tubing, Fittings, Clamps, Gaskets, Hoses,
and Mounting Hardware

05.00.00.00 COMPLIANCE STATEMENTS

.01.00.00 Altitude Performance Adjustments

The conditions of 86.1604(a)(1) and (a)(2) are not caused by and vehicle performance is unchanged or improved by the performance of these high altitude adjustment procedures. These high altitude adjustment procedures are in compliance with Section 202(a)(4)(A) of the Act, which prohibits vehicles from causing any unreasonable risks to public health, welfare and safety.

.02.00.00 Labeling

The label and any adhesives used on 2006 model year Honda motorcycles are designed to withstand the motorcycle's total expected life, and typical vehicle environmental conditions in the area where the label is attached.

The labels are affixed in a readily accessible location.

The location of the labels and specifications indicated on the labels for each engine family are shown on the following pages.

Honda's Vehicle Emission Information Label format was approved by the CARB on November 15, 2004 (Approval No: CMC-2004-007) and accepted by the U.S. EPA on November 15, 2004 (Ref. EPA 240949-1).

05.03.00.00 Statement of Compliance

1. Honda Motor Co., Ltd. states that any element of design, system, or emission control device installed on or incorporated in new Honda motorcycles or new Honda motorcycle engines, for the purpose of complying with standards prescribed under Section 202 of the Clean Air Act, will not, to the best of Honda's information and belief, cause the emission into the ambient air of pollutants in the operation of its motorcycles or motorcycle engines which cause or contribute to an unreasonable risk to public health or welfare except as specifically permitted by the standards prescribed under section 202 of the Clean Air Act. Honda Motor Co., Ltd. further states that any element of design, system, or emission control device installed on or incorporated in new Honda motorcycles or new Honda motorcycle engines, for the purpose of complying with standards prescribed under section 202 of the Clean Air Act, will not, to the best of Honda's information and belief, cause or contribute to an unreasonable risk to public safety;

The term pollutant means:

Diesel particulates
Nickel
MMT combustion products
Ammonia
Sulfates
Hydrogen sulfide
Hydrogen cyanide
Ruthenium combustion products
Nitrosamines

or any other pollutant which Honda Motor Co., Ltd. has identified which can reasonably be expected to be emitted from these vehicles.

2. Honda Motor Co., Ltd. states that any emission control device, system, or element of design installed on or incorporated in new Honda motorcycles, for the purpose of complying with standards prescribed under Section 202 of the Clean Air Act, does not in its operation, function or malfunction result in any unsafe condition endangering the motorcycle, its riders, or persons or property in close proximity to the motorcycle.
3. The test motorcycles, with respect to which data are submitted, have been tested in accordance with the applicable test procedures, they meet the requirements of such tests, and, on the basis of such tests, they conform to the requirements of the regulations in 40 CFR Part 86, Subpart E.

05.04.00.00 Production Tolerances

Production tolerances for all parts are the same as design tolerances described in this application for certification.

05.05.00.00 Quality Control Information

The application for certification identifies and describes those engines to be covered by the Certificate(s) of Conformity issued by EPA, or Executive Order issued by ARB, and this application for certification covers only those new engines to be produced by Honda Motor Co., Ltd. which conform, in all material respects, to the design specifications (including tolerances) which are contained herein.

04.00.00.00 New Technology

2005 HONDA ATV

Application for Certification

Honda Motor Co., Ltd. Japan

2005 Model Year

Engine Family:	5HNXX0.48AR1
Model Names:	TRX500FE/TRX500FM/TRX500TM
Applicable Emission Standards:	HC+NO _x = 13.4 g/kW-hr CO = 400 g/kW-hr
Emission Data Vehicle ID:	55M1

Evaporative Family:	Not Applicable to 2005 Model Year
Description: Fuel Tank Fuel Lines	Not Applicable to 2005 Model Year
Evaporative Standards: Fuel Tank Fuel Lines	Not Applicable to 2005 Model Year
For questions, Contact:	Michael Tyrrell, 310-783-3419
Special Instructions:	None
Request for approval:	Please Issue the Certificate of Conformity by October 20, 2004

The CONFIDENTIAL INFORMATION for this engine family is provided on last page of the application

HONDA

American Honda Motor Co., Inc.
1919 Torrance Boulevard
Torrance, CA 90501-2746
Phone (310) 783-2000

September 17, 2004

AHCERT-240880

Director
Certification Division (EPA-335)
Mobile Source Air Pollution Control
U.S. ENVIRONMENTAL PROTECTION AGENCY
2000 Traverwood Drive
Ann Arbor, MI 48105

ATTENTION: Ms. Mary Green
Motorcycle Certification

Dear Sir,

Honda Motor Company, Ltd. hereby submits the application for certification for the following 2005 model year ATV engine family.

<u>Engine Family</u>	<u>Eng Code</u>	<u>Model</u>	<u>Vehicle Type</u>
5HNXX0.48AR1	55M1	TRX500FE/FM/TM	ATV

This engine family is being certified to the ATV standards for 2006 and later Recreational Off-Highway Vehicles.

We request that the Certificate of Conformity be issued by
If you have any questions, please contact me at (310) 783-3417.

Yours truly,

AMERICAN HONDA MOTOR CO., INC.



Julie A. Barkow-Peck
Certification Assistant
Certification Department

Enclosure(s)

C:\winword\docs\epa\applicationsub.epa.ofrm.doc

S01. CARBURETOR Yes ☒ No ☐

a. Number of Carburetors:

b. Number of Barrels per Carburetor:

c. Feedback Control: Yes No

d. Idle Circuit: Yes No

e. Fast Idle Circuit: Yes No

f. Other Subsystems (specify):

g. Used in previous/other engine model: No Yes
If yes, last model year used:

S02. FUEL INJECTION: Yes No

a. Type (e.g., TBI, DGI, MFI, SFI, etc.):

b. Feedback Control: Yes No

c. Point of Injection (e.g., manifold, cylinder, pre-chamber, Throttle body):

d. Used in previous / other engine models: No Yes If yes, last year used:

S03. CRANKCASE CONTROL

a. Type (e.g., PCV valve, uncontrolled flow, crankcase scavenging for 2-stroke engines): Closed Crankcase System

b. Routing: Air Cleaner Intake Manifold Inlet Ports (2-Stroke Engines) Other (specify)

S04. OXYGEN SENSOR: Yes No

a. Type: Heated Unheated Other (specify)

b. Location: Port Exhaust Manifold Other (specify)

c. Used in previous / other engine models: No Yes If yes, last year used:

S05. SECONDARY AIR INJECTION: Yes No

a. Type: Pump (AIR) Pulsed (PAIR)

b. Point of Injection: Port Exhaust Manifold Other (specify)

c. Method of Modulation: Vacuum Solenoid

d. Sensed Parameters (check all applicable): Coolant Temp Engine RPM MAP
Throttle Position Other (specify)

e. Used in previous / other engine models: No Yes If yes, Last year used:

S06. EXHAUST GAS RECIRCULATION (EGR): Yes No

a. Sensed Parameters (check all applicable): Coolant Temp Engine RPM MAP
Throttle position Other (specify)

b. Method of Modulation: Vacuum Solenoid

c. Used in previous / other engine models: No Yes If yes, last year used:

S07. ADJUSTABLE PARAMETERS AND ANTI-TAMPERING

Parameter	Adjustable Range (or N/A)	Tamper Resistance Method	Approval Reference
Idle A/F control (Pilot Screw)	Not Limited	Recess "D" shaped head that requires a special tool	Approved by EPA on 09/03/91

S08. AUXILIARY EMISSION CONTROL DEVICES (AECD)³ AND DEFEAT DEVICES⁴

TABLE A: Sensed Parameters⁵ versus Controlled Parameters⁶

Sensed Parameter	Sensor	Control Parameters				
		ignition timing				
engine RPM	CKP sensor	X				
throttle position	TP sensor	X				

TABLE B: Justifications for AECDs

Controlled	Sensed	Device	Justifications / Notes
ignition timing	engine RPM	CKP sensor	This control strategy is substantially included in the FTP. Further, there is no obvious emission increase outside of FTP.
	throttle position	TP sensor	

3 **AECD:** any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any of the emission control system.
4 **Defeat Device:** An AECD that reduces the effectiveness of the emission control system under conditions that may reasonably be expected to be encountered in normal operation and use, unless (1) such conditions are substantially included in the emission test procedure, (2) the need for the AECD is justified in terms of protecting the engine against damage or accident, or (3) the AECD does not go beyond the requirements of engine starting. **A pending engine family that is shown to contain a defeat device will not be certified. A certified engine family that is found to contain a defeat device will subject the manufacturer to enforcement actions.**
5 Examples of Sensed Parameters: atmospheric pressure, crankshaft position, engine RPM, cylinder position, coolant temperature, intake air temperature, intake manifold pressure, throttle position, oxygen concentration in exhaust gas, vehicle speed, knocking, EGR valve position, shift position of transmission, etc.
6 Examples of Controlled Parameters: fuel metering, ignition timing, idle speed, EGR valve, secondary air injection pump or valve, etc.

Model Year: 2005
Manufacturer Name: HONDA MOTOR CO., LTD.
Engine Family: 5HNXX0.48AR1
EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: 3
Issued: 09/15/2004
Revised: 09/30/2004
E.O.#: U-M-003-0152

S09. CATALYTIC CONVERTER: Yes X No _____

a. Type/Number/Arrangement (e.g., TWC, OC, 2TWC for 2 parallel, TWC(2) for 2 in series): OC

b. Location (e.g., close coupled, exhaust manifold, muffler): muffler

c. Catalyst Manufacturer: MITSUI MINING & SMELTING CO., LTD.

d. Substrate: (i) Volume: 93 cc (ii) Construction: Pellet _____ honeycomb _____ Pipe X

Number of cells N/A (per cm²)

(iii) Composition: Ceramic _____ Metallic X (iv) Containment Method: Wire mesh _____ Other (specify) X

e. Active Material:

Composition (Pt, Pb, Rh): _____ Ratio: _____ Loading (g/L) _____

CONFIDENTIAL

S10. PROJECTED SALES AND PRODUCTION PERIOD

CONFIDENTIAL

a. Projected California Annual Sales (units): _____ Projected 50 State Sales(units): _____

b. Estimated Production Period: Start Date: _____ End Date: _____

c. Estimated Introduction into Commerce Date: _____

Page: 4

Issued: 09/15/2004

Revised:

E.O.#: U-M-

[illegible]

Model Year: 2005

Page: 5

Manufacturer Name: HONDA MOTOR CO., LTD.

Issued: 09/15/2004

Engine Family: 5HNXX0.48AR1

Revised: 10/18/2004

EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

E.O.#: U-M- 003-0152

S21. EMISSION-RELATED PART NUMBER (Part numbers as stamped on the component, not the stock or inventory numbers, should be listed here.)

	Vehicle Model				
	TRX500FE	TRX500FM	TRX500TM		
Fuel System:					
Carb / Mixer Assy.	16100-HP0-A02	16100-HP0-A02	16100-HP0-A02		
Intake Manifold	16211-HP0-A00	16211-HP0-A00	16211-HP0-A00		
Intake System:					
Air Cleaner Element	17254-HP0-A00	17254-HP0-A00	17254-HP0-A00		
Ignition System:					
Spark Plug	98079-5514E-A0	98079-5514E-A0	98079-5514E-A0		
Spark Plug	98079-5515E-01	98079-5515E-01	98079-5515E-01		
Ignition Coil	30500-HP0-A01	30500-HP0-A01	30500-HP0-A01		
ICM	30410-HP0-A11	30410-HP0-A01	30410-HP0-671		
Spark Plug Cap	30700-MBN-671	30700-MBN-671	30700-MBN-671		
Ignition Pulse Generator	31100-HP0-A01	31100-HP0-A01	31100-HP0-A01		
EGR:					
Air Injection					
Aftertreatment System:					
Catalyst	18351-HP0-A00	18351-HP0-A00	18351-HP0-A00		
Crankcase System:					
Air Cleaner Housing	17210-HP0-A00	17210-HP0-A00	17210-HP0-A00		
Air Cleaner Housing Cover	17217-HP0-A00	17217-HP0-A00	17217-HP0-A00		
Oil Filler Cap	15660-HP0-A00	15660-HP0-A00	15660-HP0-A00		

Model Year: 2005
Manufacturer Name: HONDA MOTOR CO., LTD.
Engine Family: 5HNXX0.48AR1
EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: 6
Issued:
Revised:
E.O.#: U-M-

S22. LABELING: Emission label format approved? No ☐ Yes ☒ If yes, reference approval: CRC-2003-0010
Sample label attached? No ☐ Yes (put label in #S23) ☒


S23. ADDITIONAL INFORMATION AND COMMENTS

The frame number is stamped on the front of the frame.

Consumer Hang Tag

For 50S

VEHICLE EMISSION CONTROL INFORMATION-HONDA MOTOR CO., LTD.			
ENGINE FAMILY IDENTIFICATION-5HNXX0.23AA3		DISPLACEMENT-229cm ³	
TUNE UP SPECIFICATIONS (READ OWNER'S MANUAL FOR MORE DETAILS)			
IDLE SPEED (IN NEUTRAL) 1400±100 r/min AT NORMAL OPERATING TEMPERATURE			
SPARK PLUG GAP	0.8-0.9 mm	VALVE LASH	IN: 0.13mm, EX: 0.13mm (COLD)
NO OTHER ADJUSTMENTS NEEDED.			
FUEL	GASOLINE 91 RON MIN. SEE OWNER'S MANUAL FOR GASOLINES CONTAINING ALCOHOL.		
THIS VEHICLE IS CERTIFIED TO OPERATE ON UNLEADED GASOLINE.			
LUBRICANT	SAE 10W-40	EMISSION STANDARDS	CO=400 (g/kW-h)
MAXIMUM BRAKE POWER	16.8 bhp	HC+NOx=13.4 (g/kW-h)	
THIS VEHICLE MEETS U.S. EPA AND CALIFORNIA REGULATIONS			
FOR 2006 MODEL YEAR NEW OFF-HIGHWAY RECREATIONAL VEHICLES.			
		1/05	HN6-A30



TRX250EX

229cc FOUR-STROKE

NORMALIZED EMISSION

RATE(NER)= 5

CLEANEST LEAST CLEAN

0 5 10

BEST ON EARTH™

THIS HANGTAG IS NOT TO BE REMOVED BEFORE SALE.

HN6-A30

Model Year: 2005
Manufacturer Name: HONDA MOTOR CO.,LTD
Engine Family: 5HNXX0.48AR1
EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: 7
Issued: 09/15/2004
Revised:
E.O.#: U-M-

S24.ADDITIONAL INFORMATION AND COMMENTS

EPA Requirement of application documents for off-road motorcycle and ATVs;

Items Required by 40CFR Part1051, Subpart C, Section 1051.205 that are not in the CARB APPLICATION

(a) Describe Engine Family Specifications.

Type of Fuel.

Gasoline

The bore diameter of cylinder.

92.0mm

Other Basic parameters of the vehicle design.

N/A

(b) Explain how the emission-control systems operate.

(1) Exhaust emission control

Crankcase Emission Control System

The engine is equipped with a Closed Crankcase System to prevent discharging crankcase vapors into the atmosphere. Blow-by gas is returned to the combustion chamber through the air cleaner and carburetor.

Oxidation Catalytic Converter

The oxidation catalytic converter contains precious metals that serve as catalysts promoting chemical reactions to convert the exhaust gasses without affecting the metals. It acts on HC and CO.

(2) Evaporative emission control

Not applicable for 2005 model year.

Model Year: 2005
Manufacturer Name: HONDA MOTOR CO.,LTD
Engine Family: 5HNXX0.48AR1
EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: 8
Issued: 09/15/2004
Revised:
E.O.#: U-M-

(c) Describe the vehicle or engines you selected for testing and the reason for selecting them

This engine family has one engine type, from an emissions standpoint. Within this family there are two types of transmission operation (electronic and manual) and two types of drive (2WD and 4WD). The TRX500FE uses 4WD and an electronic transmission. The TRX500FM uses 4WD and a manual transmission while the TRX500TM uses 2WD and a manual transmission. The transmissions for the 4WD models have more internal friction. Therefore, the TRX500FE or TRX500FM should be selected for testing. The difference in transmission operation does not affect emissions. The engine with electronic transmission (TRX500FE) was selected because of the convenience in ULGE test procedure.

(d) Describe any special or alternate test procedures you used.

We use ULGE(SAE-J1088) test procedure admitted by California Air Resources Board.
 According to Federal Register November 8, 2002 Volume 67 No. 217 Page 68270.

(e) Describe how you operated the engine or vehicle prior to testing, including the duty cycle and the number of engine operating hours used to stabilize emission levels, and any scheduled maintenance you performed.

The engine is operated on an engine dyno. bench using a representative test cycle. The test distance is calculated based on the engine speed and the top gear ratio for each step in the cycle and the duration of each step. The certification data was obtained after accumulation of the full 10,000km test distance.

Performed maintenance

ITEMS \ km	2034	4000	6002	8003
FUEL LINE	I	I	I	I
AIR CLEANER	C(I)	C(I)	C(I)	C(I)
AIR CLEANER HOUSING				
DRAIN TUBE	I	I	I	I
SPARK PLUG	I	I	I	I
VALVE CLEARANCE	I	I(A)	I	I(A)
ENGINE OIL	R	R	R	R
ENGINE OIL FILTER	R	R	R	R
ENGINE IDLE SPEED	I	I(A)	I	I

Maintenance Procedures I :inspect C :clean A :adjust L :lubricate R :replace
 (Action Taken)

Model Year: 2005
Manufacturer Name: HONDA MOTOR CO.,LTD
Engine Family: 5HNXX0.48AR1
EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: 9
Issued: 09/15/2004
Revised:
E.O.#: U-M-

(f) List the specifications of the test fuels to show that they fall within the required ranges.

Test Fuel Specifications

Item	Requirement(S1065.210)	Test Fuel
Distillation Range:		
1. Initial boiling point,	23.9–35.0	31
2. 10% point, deg.C	48.9–57.2	57
3. 50% point, deg.C	93.3–110.0	105
4. 90% point, deg.C	148.9–162.8	151
5. End point, deg.C (maximum)	212.8	190
Hydrocarbon composition:		
1. Olefins, volume %	10 maximum	6.3
2. Aromatics, volume %	35 maximum	32
3. Saturates	Remainder	61.7
Lead (organic), g/liter	0.013 maximum	0.001
Phosphorous, g/liter	0.0013 maximum	0.0002
Sulfur, weight %	0.008 maximum	0.0005
Volatility (Reid Vapor Pressure), kPa	60.0 to 63.4.	63

This test fuel complies with the requirements of 40 CFR 86.513, in accordance with the CARB requirements for off-highway recreational vehicles.

(g) Identify the engine family's useful life.

10,000 km or 1,000 Hour or 5 years.

Model Year: 2005
Manufacturer Name: HONDA MOTOR CO.,LTD
Engine Family: 5HNXX0.48AR1
EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: 10
Issued: 09/15/2004
Revised:
E.O.#: U-M-

(h) Proposed maintenance and usage instructions for the ultimate buyer of each new vehicle.

These items will be provided in the owner's manual .A copy of the manual will be provided to the EPA when it is available.

(i) Proposed emission-related installation instructions if you sell engines for someone else to install in a vehicle.

Honda Motor Co.,Ltd. currently does not sell ATV engines to other manufacturers.

(k)(2) Present evaporative test data for HC to show your vehicles meet the evaporative emission standards we specify in subpart B of this part.

Not Applicable for 2005 model year

(k)(3) Note that 1051.235 and 1051.245 allows you to submit an application in certain cases without new emission data.

Not applicable.

Model Year: 2005
Manufacturer Name: HONDA MOTOR CO.,LTD
Engine Family: 5HNXX0.48AR1
EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: 11
Issued: 09/15/2004
Revised:
E.O.#: U-M-

(m) Identify the engine family's deterioration factors and describe how you developed them.
Present any emission test data you used for this.

This engine family (5HNXX0.48AR1) did not actually use deterioration factors to calculate certification emission levels.
Certification emissions were obtained after accumulation of the full useful life distance.
The deterioration factors described below are in accordance with Subpart C, Section 1051,240.

Exhaust emission test data:

		Emission Values (g/kW-hr)			
Test Number	System Kilometers	HC	CO	NOx	HC+NOx
1	2020	2.41	247.7	3.46	5.87
2	10023	2.82	245.9	4.22	7.04
Deterioration Factors		1.170	1.000(0.993)	1.220	N/A

Model Year: 2005
Manufacturer Name: HONDA MOTOR CO.,LTD
Engine Family: 5HNXX0.48AR1
EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: 12
Issued: 09/15/2004
Revised:
E.O.#: U-M-

(o) State that you operated your test vehicles or engines according to the specified procedures and test parameters using the fuels described in the application to show you meet the requirements of this part.

Honda Motor Co.,Ltd. certifies that the test vehicles or engines have been tested in accordance with specified procedures and test parameters using the fuels described in the application to show you meet the requirements of 40 CFR Part 86,part 1051.This ATV engine family was testing under the provisions of 1051.145(b).

(p) State unconditionally that all the vehicles (and/or engines) in the engine family comply with the requirements of this part, other referenced parts, and the Clean Air Act.

Honda Motor Co.,Ltd. certifies that all the vehicles or engines in the engine family comply with the requirements of 40 CFR Part 86,part 1051, other referenced parts, and the Clean Air Act.

(r) Show us how to modify your production vehicles to measure emissions in the field.

The straight pipe shown in SAE-J1088 3.2 Exhaust Gas Sampling System is installed after the muffler end, and emissions are measured there.

(s) Add other information to help us evaluate your application if we ask for it.

Model Year: 2005
Manufacturer Name: HONDA MOTOR CO.,LTD
Engine Family: 5HNXX0.48AR1
EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: 13
Issued: 09/15/2004
Revised:
E.O.#: U-M-

S25.HIGH ALTITUDE PERFORMANCE ADJUSTMENT Yes

Procedure requires the use of optional part:

Altitude part :	Part Description :
Main Jet	#158 (Above 6,500 feet)
Main Jet	#162 (Below 5,000 feet)

Procedure requires parameter adjustment:

Altitude :	Parameter Adjusted :	Adjustment Specification :
Above 6,500 feet	Pilot Screw	3/8 turn in ^{*1}
Below 5,000 feet	Pilot Screw	3/8 turn out ^{*2}

^{*1} from the factory preset position

^{*2} from the high altitude setting

Model Year: 2005
Manufacturer Name: HONDA MOTOR CO.,LTD
Engine Family: 5HNXX0.48AR1
EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Page: 14
Issued: 09/15/2004
Revised:
E.O.#: U-M-

CONFIDENTIAL INFORMATION

S09. CATALYTIC CONVERTER:

e. Active Material:

Composition (Pt, Pb, Rh) [REDACTED] Ratio [REDACTED] Loading (g/L) [REDACTED]

S10. PROJECTED SALES AND PRODUCTION PERIOD

a. Projected California Annual Sales (units): [REDACTED] Projected 50 State Sales (units): [REDACTED]

b. Estimated Production Period:

Start Date: [REDACTED] End Date: [REDACTED]

c. Estimated Introduction into Commerce Date: [REDACTED]